

Message from the Vice-President (Research)

I would like to thank everyone for their support over the past year as I settled into the role of Vice-President (Research). While we faced a few challenges, including a 16% decrease in overall research revenue, which largely stemmed from a \$8 million drop in foreign research grants, on the whole I believe we are well positioned to improve our standing next year.

Upon assuming the job one of the first things I did was to develop an orientation workshop for new faculty. Our office hosted a one-day event for new researchers. Sessions were held on grant writing, research success across disciplines, the role and support services available within ORS, and working with graduate students. Twenty-five new faculty attended the workshop.

Over the last year our faculty have had a number of successes. Two members, Dr. Ali Ghorbani, and Dr. Dharendra Shukla and one of our students, Jordan Kennie, were recently recognized by Startup Canada for their entrepreneurship. UNB has also been involved in two new ACOA projects. The Tetra Bio-Pharma and UNB Cannabis Research Chair was also announced. The chair will focus on the study of the medical use and pharmacology of cannabis. New Brunswick Health Research Foundation and Tetra Bio-Pharma each invested \$500,000 in the initiative. Dr. Jeff Hebert has also joined the Faculty of Kinesiology as the Canadian Chiropractic Research Foundation Chair in Best Practices for Musculoskeletal Health. I am also happy to announce a number of new commitments on the cyber security front. Both McCain Foods and the TD Bank have donated \$100,000 to the Canadian Institute of Cyber Security. A membership agreement was also signed with Bell Canada.



David MaGee,
Vice-President (Research)

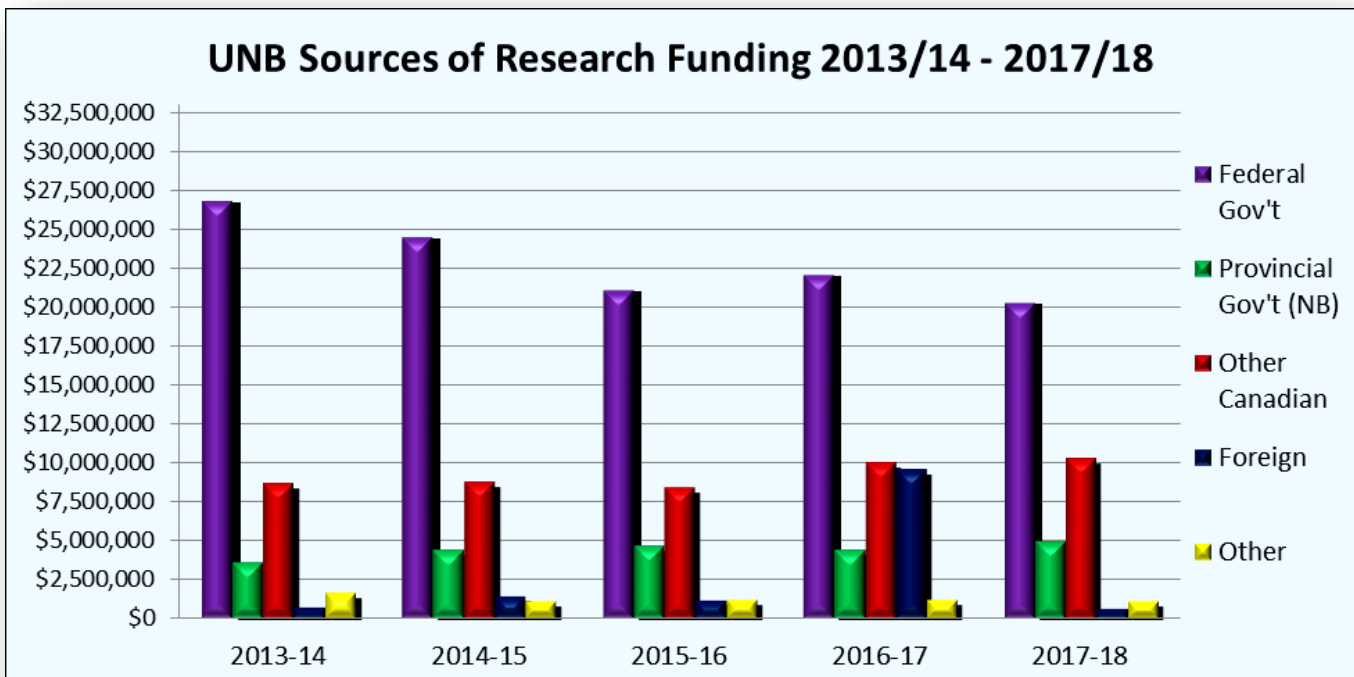
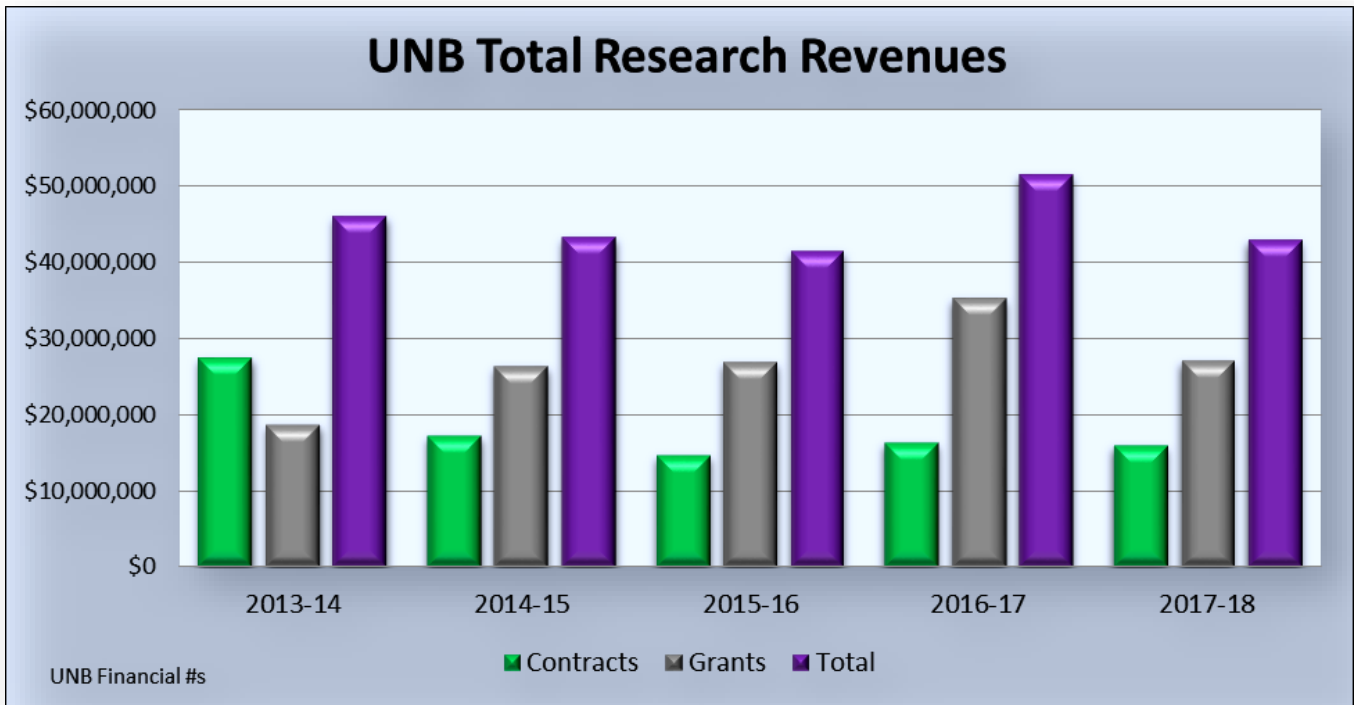
While all of this bodes well for the STEM and Health Sciences, our SSHRC faculty members also have a lot to be proud of. The success rate for SSHRC awards saw a significant increase. Specifically, those who applied for SSHRC Insight Grants saw a 42% success rate, with \$1.8 million being awarded in grants. Of particular note were the substantial awards received by Dr.'s Sue O'Donnell and Carmen Poulin, who each received awards of greater than \$300,000.

In sum, the University of New Brunswick has a lot to be proud of. I look forward to working with you to ensure that next year we can celebrate even more success stories.

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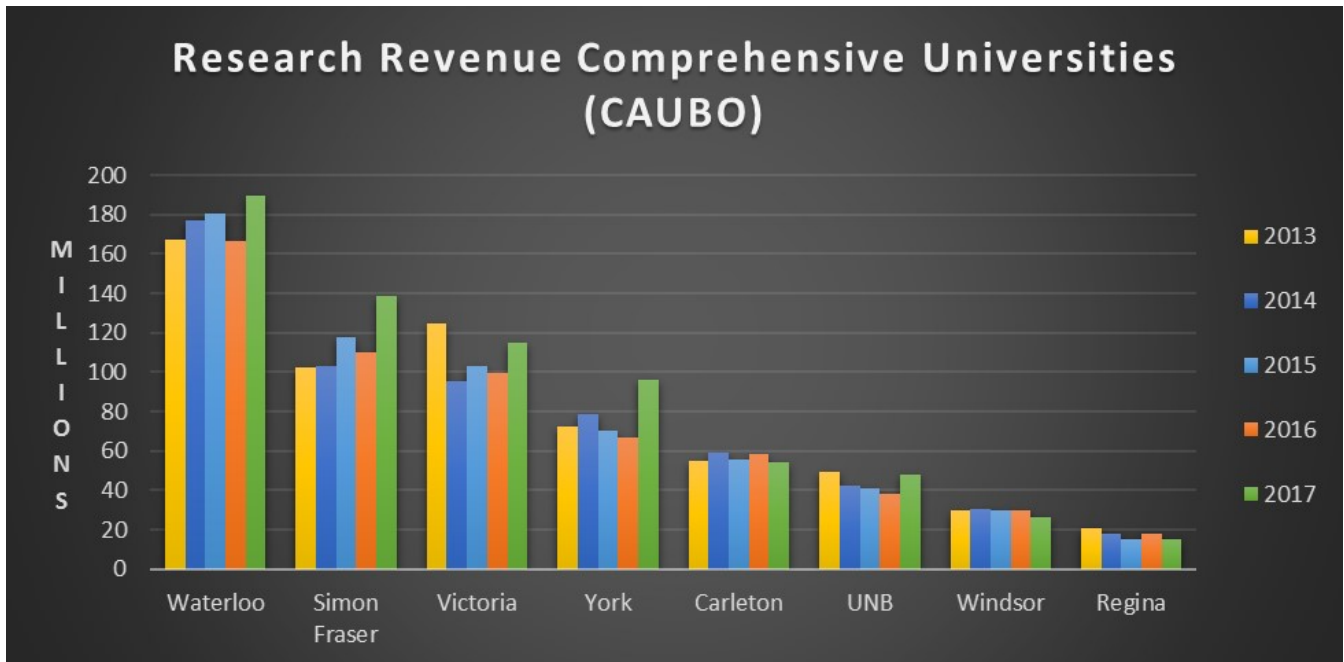
Research Revenue

Our overall revenues have remained steady over the past 5 years, excluding 2016-17 fiscal year where we saw a large increase due to one-time funds from Lockheed Martin for both Cyber Security and Additive Manufacturing research. The 2017-18 fiscal year saw a decrease in our research revenues of 16.6% from last year.

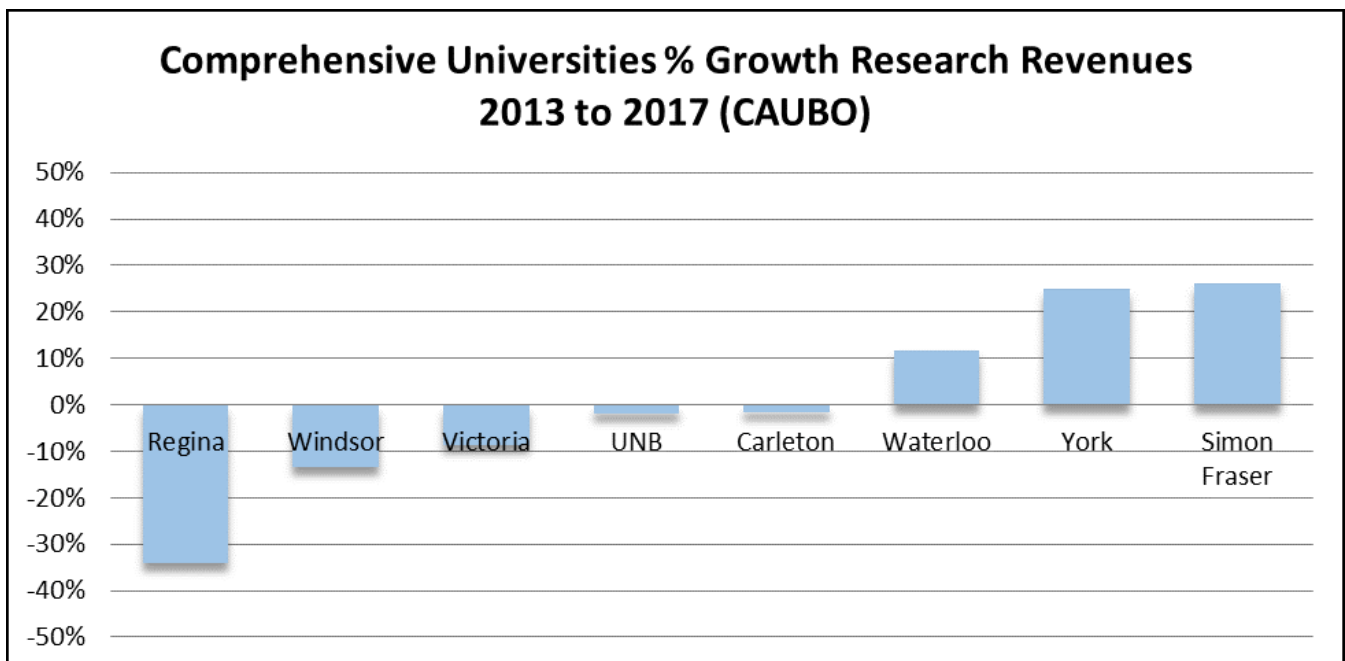


Research Revenue (continued)

The Canadian Association of University Business Officers (CAUBO) compiles summaries of research-related revenues based on mutually agreed upon definitions. It is this number that is used for inter-institutional comparisons. In the fiscal year 2017, UNB's total sponsored research revenues as per CAUBO rules was \$48M. This was up 26% from the final CAUBO number for the previous year. The inter-institutional comparative revenues graphed below are one year in arrears due to reporting and publication delays.



We have routinely reported our percentage growth in CAUBO research revenues over a rolling five year period in comparison to our peer group of universities, the chart below show's how we have done.



Research Revenue (continued)
Research Revenue per Generating Academic Units & Research Institutes

The following table attributes research revenues by generating academic unit during the last fiscal year. Grants, contracts and other column values are generated by audited CAUBO numbers. Funding for research scholarships such as Canadian Heritage, Canada Council, and The NB Arts Board are reported in the Additional Research Funding column, as submitted by Chairs and Deans of the departments and Faculties. Note that some research revenues are generated by the university, but are not reported on this table (e.g., the Research Support Fund program).

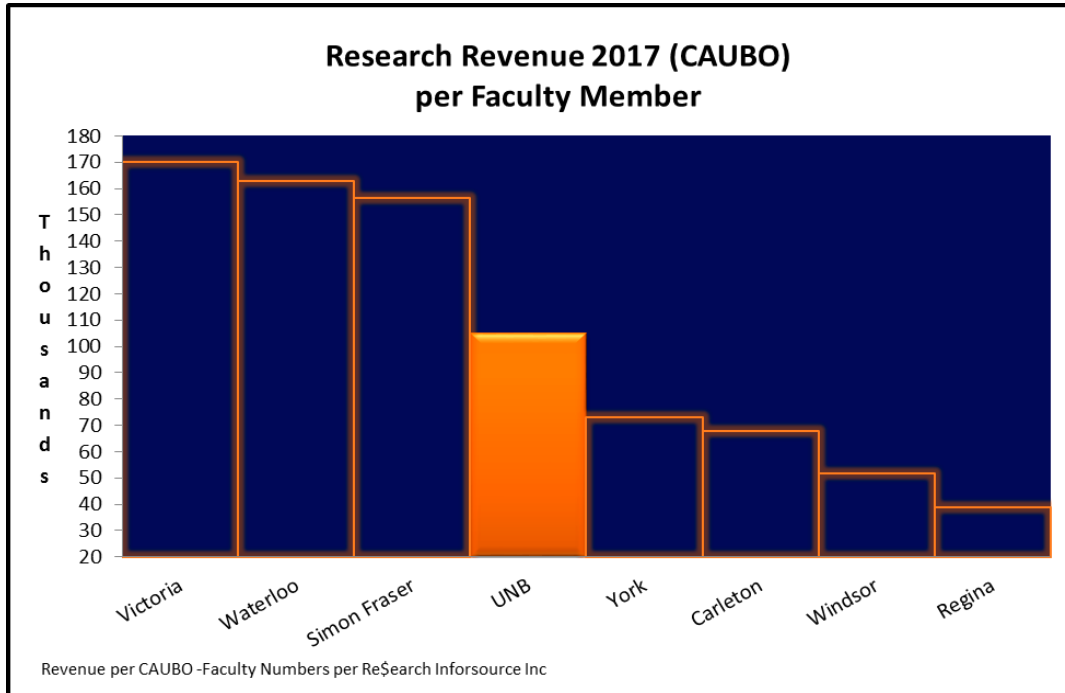
Research Revenues per Generating Academic Units & Research Institutes					
UNIT	Grants (CAUBO)	Contracts (CAUBO)	Other (CAUBO)	Total (CAUBO)	Additional Research Funding
ARTS (F)	2,842,541	51,486	171,847	3,065,874	331,303
Arts	151,477			151,477	
Anthropology	59,595		26,921	86,516	
Classics & Ancient History			-1,468	-1,468	
Culture & Media Studies			2,448	2,448	47,750
Economics	1,407,999	5,587		1,413,586	
English	58,766			58,766	205,540
French	4,000		5,000	9,000	
History	366,522		62,252	428,774	5,235
Political Science			11,366	11,366	19,978
Philosophy			24,813	24,813	7,900
Psychology	202,995	26,514	17,500	247,009	
Sociology	591,187	19,385	23,015	633,587	44,900 (US)
BUSINESS ADMIN (F)	78,898			78,898	5,500
COMPUTER SCIENCE (F)	455,963	194,437	32,000	682,400	
EDUCATION (F)	643,289	500	102,500	746,289	258,673
ENGINEERING (F)	4,434,196	2,874,527	431,296	7,740,019	
Engineering	30,000			30,000	
Chemical Engineering	1,462,649	593,653	10,168	2,066,470	
Civil Engineering	247,183	464,616	7,000	718,799	
Electrical & Computer Eng.	1,133,049	815,342		1,948,391	
Geodesy & Geomatics	602,925	532,947	135,000	1,270,872	
Mechanical Engineering	684,260	278,187	46,875	1,009,322	
J Herbert Smith ACOA Chair	274,130	189,782	232,253	696,165	
FORESTRY (F)	1,030,481	1,541,179	15,794	2,587,454	
KINESIOLOGY (F)	514,144	36,000		550,144	
LAW (F)	204,394			204,394	
NURSING (F)	560,108	94,783	23,595	678,486	358,838

Research Revenues per Generating Academic Units & Research Institutes (continued)

Research Revenues per Generating Academic Units & Research Institutes					
UNIT	Grants (CAUBO)	Contracts (CAUBO)	Other (CAUBO)	Total (CAUBO)	Additional Research Funding
SCIENCE (F)	3,596,214	2,102,730	96,775	5,795,719	
Biology	789,967	439,940	21,801	1,251,708	
Chemistry	454,478	54,011	60,314	568,803	
Earth Sciences	1,157,773	349,064	12,500	1,519,337	
Math & Stats	358,177	30,000	2,160	390,337	
Physics	835,819	1,229,715		2,065,534	
SCHOOL OF GRAD STUDIES			1,643,911	1,643,911	
INSTITUTE OF BIOMEDICAL ENGINEERING	690,208	1,076,458	12,500	1,779,166	
CANADIAN INSTITUTE FOR CYBERSECURITY	904,088	1,040,755	-153	1,944,690	
ATLANTIC INSTITUTE FOR POLICY RESEARCH (Formerly CRISP)			25,000	25,000	
CDN. RIVERS INSTITUTE (F & SJ)	1,772,370	969,600		2,741,970	
NB INSTITUTE RESEARCH DATA	421,737	116,656		538,393	
CNER INSTITUTE*	40,000	322,998		362,998	
ARTS (SJ)	60,206	36,148	38,215	134,569	
History & Politics	15,740		38,215	53,955	
Humanities & Languages				0	
Psychology				0	
Social Science	529			529	
Criminal Justice Studies	43,937	36,148		80,085	
BUSINESS (SJ)				0	
SCIENCE, APPLIED SCIENCE & ENGINEERING (SJ)	1,364,785	296,373	234,090	1,895,248	
Biology	381,494	159,565	25,000	566,059	
Computer Science	12,600	26,808		39,408	
Mathematics & Statistics	15,000			15,000	
Nursing/Health Sciences	478,599		209,090	687,689	
Science & Engineering	411,092	110,000		521,092	
Physical Sciences	66,000			66,000	
DAL MEDICAL ED PROGRAM	220,972			220,972	
URBAN & COMMUNITY STUDIES INSTITUTE	-10,498			-10,498	

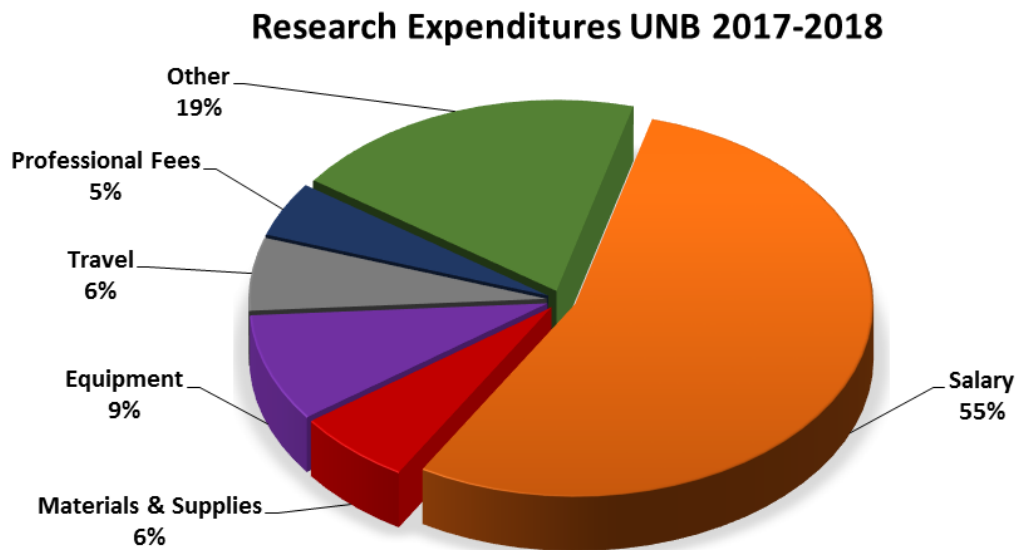
Research Revenue (continued)

A metric that is commonly cited when comparing the research intensity at universities is the research revenue generated per faculty member. In order to make such a comparison credible, independent sources are required for the two metrics. For our purposes, we use Re\$earch Info Source Inc. and CAUBO to generate the table shown below.



Research Expenditures

The majority of the research funding received by UNB goes back into the New Brunswick economy through salaries. In 2017-18, \$20.6 million was spent on student and non-student salaries. Equipment, materials and supplies consumed \$5.2 million and travel \$2.4 million.

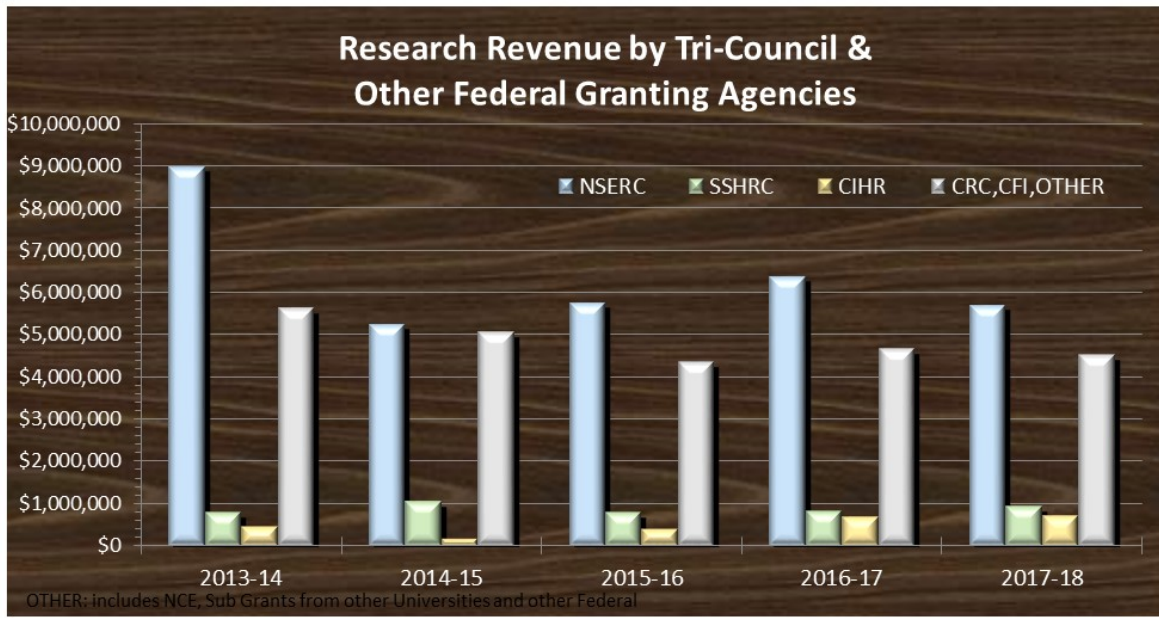


*Note: Preliminary Numbers from Datatel System

NOTE: The bulk of all research revenues eventually flow back out as expenses. Due to the timing of different accounting tasks, however, total research expenditures will not equal total research revenues for the fiscal year.

Tri-Council Funding

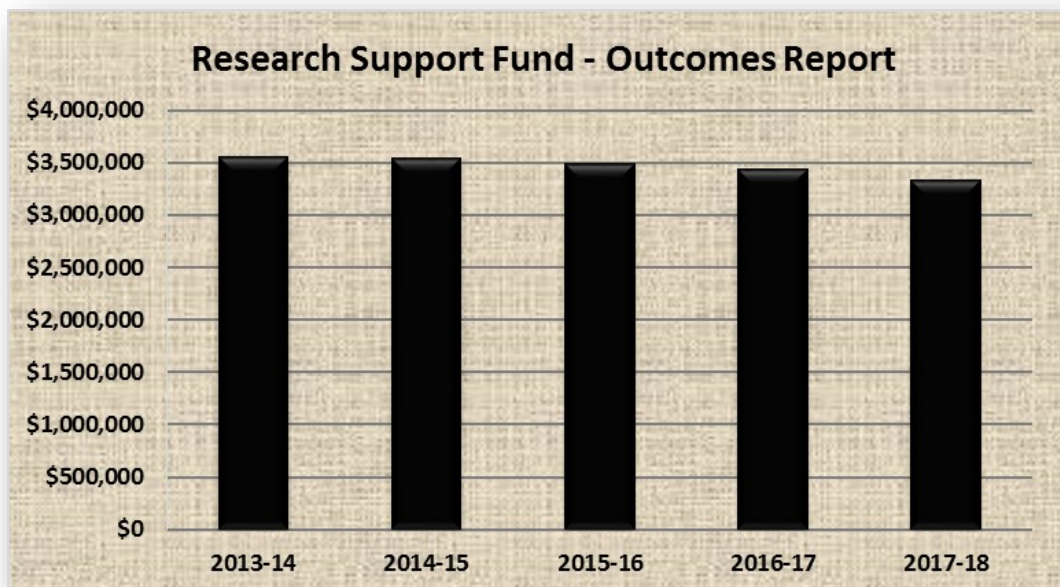
UNB's Tri-Council (NSERC, SSHRC, CIHR) grant revenues in fiscal year 2017-18 decreased by 7.1% overall to \$7.3M from the \$7.86M level of 2016-17.



As indicated, grants from Tri-Council are a very important component of UNB's research activities. The details of our successes or lack thereof are being continuously scrutinized. To that end, details of our 2017 submissions to, and awards from NSERC, SSHRC & CIHR are depicted on the above table (totals awarded will differ from the research revenue recognized above due to timing of revenue recognition).

Research Support Fund

The Research Support Fund program provides funding for research facilities, resources, management and administration, regulatory requirements, accreditation and intellectual property management. The amount universities receive from this program is contingent on their level of Tri-Council funding based on a three-year rolling average. The university's allocation for 2016-17 was \$3,435,398, and the allocation for the 2017-18 fiscal year was \$3,328,336.



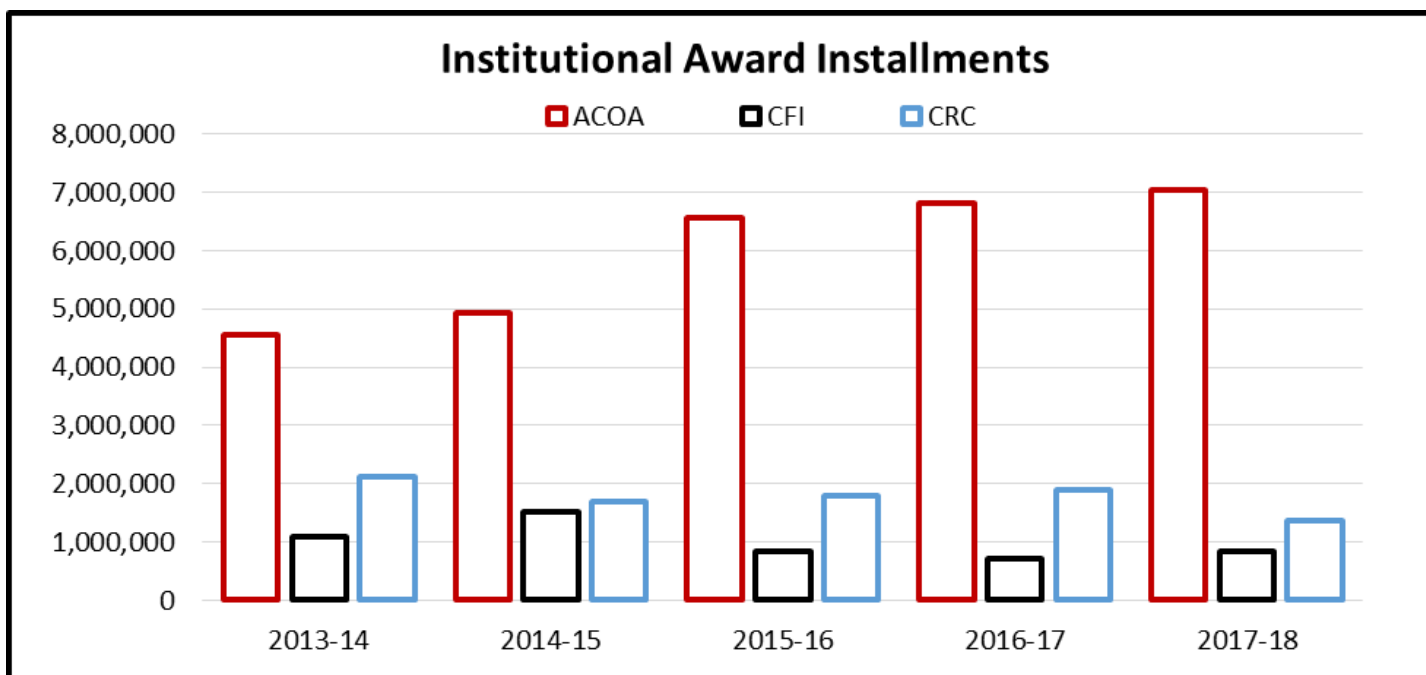
Tri-Council Success

UNB's awarded Tri-Council success results are based on the 2017 calendar year.

2017 Results							
Submissions	Program	Submitted	Requested	Successful	Awarded	Success Rate	Funding Rate
NSERC	CRD	3	879,875	3	879,875	100.00%	100.00%
	Strategic Project (LOI)	1	0	0	0	0.00%	0.00%
	RTI	11	984,384	1	149,300	0.00%	0.00%
	Discovery	46	14,014,905	25	3,079,000	54.35%	21.97%
	Engage & Engage Plus	15	343,719	13	297,219	86.67%	86.47%
	Other	11	4,510,287	8	195,669	72.73%	4.34%
	Total NSERC		87	20,733,170	50	4,601,063	57.47%
SSHRC	Insight	19	2,509,611	8	1,181,346	42.11%	47.07%
	Other	30	1,592,583	3	416,313	4.80%	1.10%
	Total SSHRC	49	4,102,194	11	1,597,659	22.45%	38.95%
CIHR	Foundation Scheme		Foundation Scheme Suspended				
	Project (frmly OOG)	4	770,000	0	0	0.00%	0.00%
	Other	5	869,961	2	120,000	40.00%	13.79%
	Total CIHR	9	1,639,961	2	120,000	22.22%	7.32%

2016 Results							
Submissions	Program	Submitted	Requested	Successful	Awarded	Success Rate	Funding Rate
NSERC	CRD	4	1,641,432	4	1,641,432	100.00%	100.00%
	Strategic Project	1	776900	0	0	0.00%	0.00%
	RTI	10	1,519,812	0	0	0.00%	0.00%
	Discovery	43	12,494,161	23	2,945,000	53.49%	23.57%
	Engage & Engage Plus	13	312,439	10	234,500	76.92%	75.05%
	Other	18	2,832,595	7	32,085	38.89%	1.13%
	Total NSERC		89	19,577,339	44	4,853,017	49.44%
SSHRC	Insight	8	1,641,650	3	359,347	37.50%	21.89%
	Other	27	1,608,401	14	761,103	4.80%	1.10%
	Total SSHRC	35	3,250,051	17	1,120,450	48.57%	34.47%
CIHR	Foundation Scheme		Foundation Scheme Suspended				
	Project (frmly OOG)	12	4,320,000	1	424,298	8.33%	9.82%
	Other	8	2,641,958	4	802,015	50.00%	30.36%
	Total CIHR	20	6,961,958	5	1,226,313	25.00%	17.61%

Institutional Funding



Atlantic Canada Innovation Fund

The Atlantic Canada Opportunities Agency (ACOA) continues to support UNB research. ACOA funding has been steadily increasing over the last 5 years. There were 5 new awards in the 2017-18 fiscal year, with a total of 25 active projects during the year.

ACOA has moved to a continuous intake of proposals model, giving a more rapid flow of projects through the university through ACOA's various programs. During the 2017-18 year, UNB researchers continued to have active projects via the Atlantic Innovation Fund, the Business Development Program, the Atlantic Policy Research Initiative, and the Innovative Communities Fund, as well as within various projects led by industry and partner institutions.

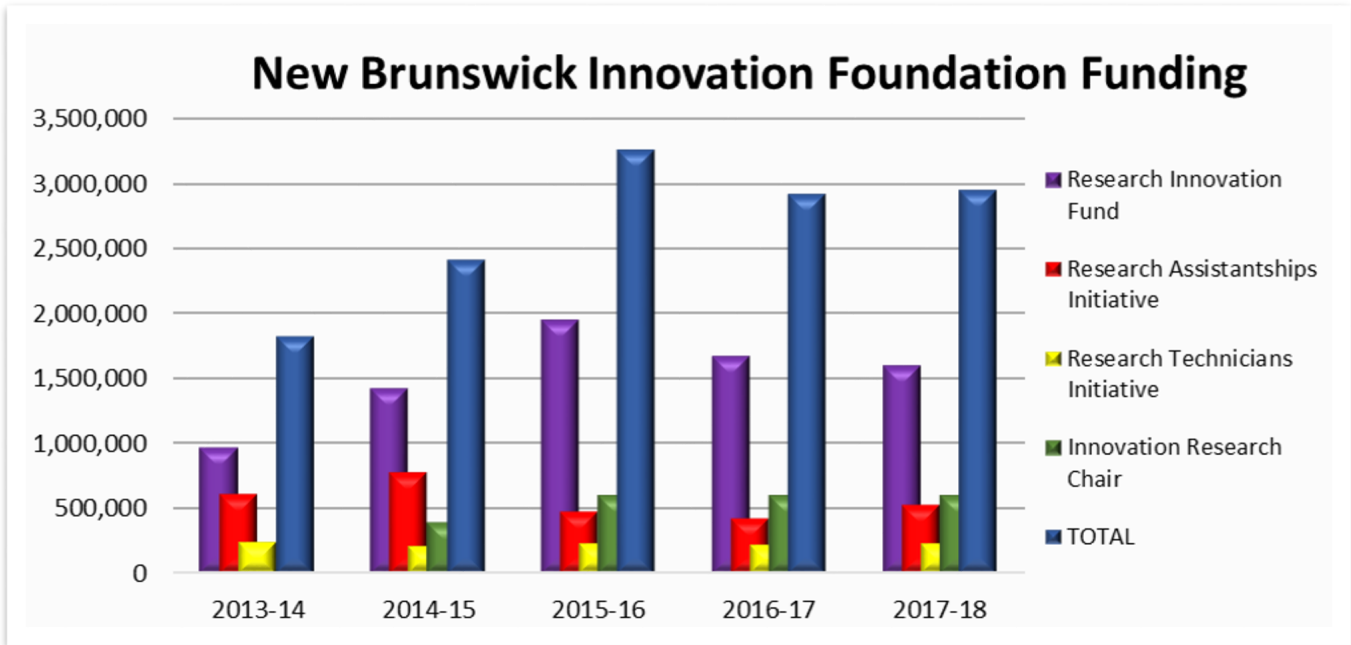
Canada Foundation for Innovation (CFI)

In 2017-18, UNB was successful in having six new projects approved with a total CFI contribution of \$3,004,441, plus an additional \$886,527 in CFI infrastructure operating funds to help UNB maintain the awarded infrastructure. The awarded amount includes New Brunswick's first CFI Innovation Fund grant for an addition to UNB's Institute of Biomedical Engineering. The new space will house IBME's research program in Adaptive Rehabilitation Engineering Strategies (ARES) for the development and deployment of adaptive rehabilitation tools and technologies to improve the quality of life in people living and aging with chronic neurological conditions.

UNB researchers are currently leading 14 active CFI infrastructure projects involving \$2.35 million from the CFI and \$2.97 million from matching sources.

New Brunswick Innovation Foundation (NBIF)

The New Brunswick Innovation Foundation continued to be a strong supporter of research at UNB. UNB saw a slight increase in two NBIF programs, and received added funding via the Innovation Research Chair for the fourth year in a row. Total NBIF funding to UNB increased by 2% over last year.



New Brunswick Health Research Foundation (NBHRF)

NBHRF continues to contribute to UNB research. From 2011-12 to 2013-14, NBHRF contributions to UNB’s research enterprise had been in the \$200K–\$300K range. However, as the graph indicates, since 2014-15 these numbers have increased significantly due in part to funding received for the SPOR Network and the Jarislowsky Chair. Continuing on this positive trend, in the 2017-18 fiscal year over \$1.6M was received, representing an outstanding 25% increase over 2016-17 numbers. This increase was due mostly to funding for the AGEWELL Innovation Hub, the Chiropractic Health Research Chair, matching for CFI, and the Zoomers project for Dr. Danielle Bouchard.

